

SADLIL RHYTHOM

Software Engineer, Tech Lead

+353-873537624 @ kzirtm@gmail.com https://sadlil.com Dublin, Ireland.

EXPERIENCE

Software Engineer, Tech Lead

Google 05/2022 - Ongoing Dublin, Ireland

Building Software to Automate Network Design, Delivery and Monitoring at Planet Scale.

- Leading the Planning and Design of Network Delivery Orchestration System for Google Enterprise Network.
- Designing Software System to continuously monitor Network compliance.
- Work closely with Network Engineers to understand the network designs and define the software representations of the design.
- Leading a team of 6 people to implement the alpha version of the Delivery Orchestration system through providing technical guidance.
- Making decisions about crucial Technical Architecture and tools selection.
- Maintain continues communications with various stakeholders and translate business requirements to Technical requirements.
- Mentor 6 engineer to grow on their technical career ladder, resolving any conflicts and blockers.

Software Engineer, Site Reliability Engineering

Google 01/2020 - 04/2022 Dublin, Ireland

Worked in Access SRE team, managing Google's security Infra. Delivering Google's Zero Trust BeyondCorp vision for both enterprise and cloud users.

- Owner and Lead of Icepick and Uplink - Google internal solution for nonstandard application to adopt Beyondcorp Zero Trust Security model.
- Actively lead the SRE involvement in the implementation of Cloud version of the service - [AppLink](#) & [AppConnector](#).
- Designed and Implemented Reliable Web-socket Transport model for Icepick, Increasing service reliability by 70%.
- Implemented autoscaling system for Beyondcorp Infra, to support Googlers access to Google Enterprise Infra in the increasing WFH demands in COVID.
- Designed an automatic certificate renewal systems for 10K DMZ machines.
- Designed a continuous metric collection system for CLI tools from user machines.
- Member of [kubernetes/minikube](#) core team as 20% SWE Contributor.

Site Reliability Engineer - Core Infra

Booking.com 07/2019 - 12/2019 Amsterdam, Netherlands

- Built tools to Administer multi cloud Kubernetes Infrastructures, Integrate it with development pipelines. Improved 80% Developer experience with automated application onboarding, reduced 35% of turnup time.
- Developed and Maintained monitoring pipelines using Prometheus, Grafana and Elasticsearch, Improving the SLO monitoring by 15%.
- Managed both on-premise and cloud Kubernetes environments by writing Infrastructure as Code.
- Performing root cause analysis and implementing preventative measures to minimize disruptions.
- Designed an automation platform to support DC rack maintenance for on-premise Kubernetes nodes, that automatically drains and undrains a node for maintenance.

SKILLS

Golang C++ Python Neo4j

ElasticSearch MySQL PgSQL

Kubernetes Docker GCP AWS

gRPC Protocol Buffer

Promethues Grafana Loki

Kafka

PHILOSOPHY

I don't Believe in Magic

PERSONALITY

Assertive Commander

EDUCATION

BSc in Information and Communication Technology

Mawlana Bhashani Science and Technology University

2011 - 2015 Bangladesh.

PERSONAL ATTRIBUTES

Software System Design



Technical Leadership



Problem Solving



Collaboration & Commnication



Accountability and Ownership



EXPERIENCE

Senior Software Engineer

Grab

📅 11/2017 - 06/2019 📍 Singapore

- Designed, architect, and built several microservices to support 10M+ requests per day to support Grab Supply Shaping Infra.
- SRE liaison to support the reliability of team's cloud infrastructure.
- Participated in the OnCall rotation and Engineering Postmortems process to ensure high availability and scalability of the systems.
- Collaborated with multiple teams and PMs to align software systems with business requirements.
- Designed a tool to visualize Grab's supply and demand data in real time for multiple region.
- Lead a small team of 2 to design and implement a real time event processing pipeline, processing 15M events per day.

Software Engineer

AppsCode Inc.

📅 04/2015 - 11/2017 📍 Dhaka, Bangladesh

- Joined the company as #3 employee in a fast growing startup environment.
- Designed and Implemented the initial version of [voyagermesh/voyager](#) - an Ingress controller for Kubernetes.
- Guided a team of 4 to design & implement multiple kubernetes operator such as [KubeDB](#), [Kubed](#) etc.
- Design and Implemented gRPC based API server and microservices.
- Designed and build a unified artifact repository for docker, maven, npm and composer etc.
- Contributed to open source projects including Kubernetes, Jenkins, Docker.

Software Engineer

Bit Mascot Pvt Ltd,

📅 11/2014 - 03/2015 📍 Dhaka, Bangladesh.

- Implemented product search and multi product comparison functionalities for the WebCommander e-commerce platform, improved customer engagement by 10%.
- Developed an SQL library to reduce query complexities and improve query speed and developer experience.

RECENT PROJECTS

Griffin - automated network compliance

Google

I spearheaded the design and deployment of Griffin, an internal software system to automate network device state compliance assessments for Google's Enterprise Network. I designed the software architecture, API contracts, dependencies and infrastructure. Comprised of six microservices, one of which interacts with low-level network devices, such as Switches, FWs, in a vendor-agnostic manner. I led a team of 6, consisting of both software engineers and network engineers, by making strategic design decisions and fostering adherence to best practices for language and infrastructure. Throughout the implementation process, I maintained frequent and transparent communication with stakeholders and project managers to ensure the success of the solution.

Icepick

Google

I designed and built a BeyondCorp compliant solution to secure client server traffic for non-standard software. The system uses OpenVPN traffic proxied through a p2p ICE tunnel. Later, In response to increased demand for WFH and a code yellow, I designed a separate tunnel support with WebSocket increasing 70% service reliability in home network.

I also led the SRE involvement of design and development of the cloud version of Icepick - [Applink](#) and [AppConnector](#).

PROUD OF



Open Source

Use and Love to Contribute in Open Source community. Proud to be a Contributor of Kubernetes.



Competitive Programming

Participated in 5 ICPC Dhaka Regional and 4 NCPC. Runner up in 2015 IEEE RUET IUPC.



Self Learner

Ability to quickly learn new skills, demonstrated by successfully teaching myself to swim and ride a bike at 28.

FIND ME ONLINE



Website

[sadlil.com](#)



Github

[github.com/sadlil](#)



LinkedIn

[linkedin.com/in/sadlil](#)



Twitter

[twitter.com/ksadlil](#)



Medium

[medium.com/@sadlil](#)

PAST OPEN SOURCE CONTRIBUTION HIGHLIGHTS

Kubernetes

Contributor of Kubernetes - Production Grade container scheduling and management.

- Minikube core team member as Google 20% Contributor. Driving the feature integration and minikube adoption across Google and outside.
- [Fixed](#) minikube multi node pod IP overlap.
- [Added](#) minikube vm driver alias support.
- [Fix](#) kubernetes reverse DNS support for headless service.
- [Introduced](#) Prometheus metric collection for Helm tiller.
- [All Contributions](#).

voyagermesh/voyager

[Voyager](#) is a HAProxy backed secure L7 and L4 Kubernetes ingress controller with extended features. This can be used with any Kubernetes cloud providers including bare metal clusters.

- Designed and Implemented initial version from scratch.
- [Contributions](#).